

CLAIMS

What is claimed is:

1. A surface cleaning vehicle with hydraulically driven sweeping machinery, comprising:
 - a truck chassis for carrying said sweeping machinery and a prime mover engine for propelling said vehicle;
 - a second engine connected to said chassis;
 - first and second pumps and associated check/isolation valves connected to respective ones of said prime mover and second engines for driving said sweeping machinery;
 - and
 - a control mechanism for selectively connecting only one of said prime mover engine or said second engine to drive said sweeping machinery.
2. The surface cleaning vehicle of claim 1, further comprising a power-take-off unit intermediate said first pump and said prime mover engine.
3. The surface cleaning vehicle of claim 1, wherein at least one of said pumps is a variable displacement pump.
4. The surface cleaning vehicle of claim 1, wherein at least one of said pumps is a fixed displacement pump.
5. The surface cleaning vehicle of claim 2, further comprising an additional control mechanism for increasing the low idle speed of said prime mover engine when said power-take-off unit is engaged.
6. The surface cleaning vehicle of claim 2, wherein said control mechanism further comprises a master switch and a mode selector switch, said mode selector switch having a SINGLE position and a TWIN position, and said master switch having an OFF position, a START position for starting said second engine in the event said mode selector switch is in the TWIN position or engaging said power-take-off unit in the event said mode selector switch is in the SINGLE position, and a RUN position for continued operation of said second engine in the event said mode selector switch is in the TWIN position or said power-take-off unit in the event said mode selector switch is in the SINGLE position.

7. The surface cleaning vehicle of claim 6, further comprising a latching relay connected to said mode selector switch for holding the power-take-off unit in engagement in response to being energized via said mode selector switch.
8. The surface cleaning vehicle of claim 6, wherein said master switch is spring loaded such that upon being released from said START position the master switch returns to said RUN position.
9. The surface cleaning vehicle of claim 6, wherein said control mechanism includes means for disabling operation of said second engine in the event said mode selector switch is changed from the TWIN position to the SINGLE position while said second engine is running, and for disabling operation of said power-take-off unit in the event said mode selector switch is changed from the SINGLE position to the TWIN position while said power-take-off unit is running.
10. The surface cleaning vehicle of claim 6, further including a vehicle ignition switch for starting said prime mover engine and providing power to the control mechanism, such that opening said ignition switch disables operation of said sweeping machinery.
11. The surface cleaning vehicle of claim 1, wherein said hydraulically driven sweeping machinery is mechanically operated.
12. The surface cleaning vehicle of claim 1, wherein said hydraulically driven sweeping machinery is pneumatically operated.
13. The surface cleaning vehicle of claim 12, wherein said hydraulically driven sweeping machinery is pneumatically operated using vacuum.
14. The surface cleaning vehicle of claim 12, wherein said hydraulically driven sweeping machinery is pneumatically operated using regenerative air.